Science Projects Would Boost Ailing Economy Now (The Hill)

February 11, 2009 By U.S. Reps. Rush Holt and Anna Eshoo

We continue to hear from critics debating the American Recovery and Reinvestment Act that government investments will not stimulate the economy.

They are wrong.

Funding included in the House stimulus bill for science infrastructure, materials and equipment will create jobs now, not just for scientists, but also for unemployed blue-collar workers who are struggling to stay in their homes and keep food on the table.

The House bill, and to a lesser extent the Senate version, would fund already approved programs and critical research overseen by the U.S. Department of Energy Office of Science (DOE-SC), the National Science Foundation (NSF), and the National Institute of Standards and Technology (NIST). These projects would permit the repair of our aging laboratories and the construction of new facilities to take us into the 21st century.

Making the down payment outlined in the House-passed bill would yield significant dividends for an ailing economy that is reeling in the wake of nearly 11 million unemployed workers, chronic underinvestment in our innovation infrastructure, and lagging competitiveness against other countries.

We are not alone in our assessment.

According to a recently released report by the Information Technology & Innovation Foundation, a non-partisan think tank organization in Washington, “Spurring an additional $20 billion in our national research infrastructure will create or retain approximately 402,000 American jobs for one year.”

The report, “Stim-Novation: Investing in Research to Spur Innovation and Boost Jobs,” also notes that funding science in the recovery bill would create and retain a sizeable number of jobs in a wide array of occupations, including construction workers, technicians, and machinists making scientific equipment.

Both House and Senate versions of the bill provide for vital research carried out by the NIST, the National Oceanic and Atmospheric Administration and the National Aeronautics and Space Administration, including studies to enhance manufacturing competitiveness, energy efficiency, communications technology and climate modeling.

These agencies also would receive badly needed funding for their facilities, employing construction and manufacturing laborers across the country.

Unfortunately, the Senate bill does not include $2 billion for scientific infrastructure under the DOE Office of Science or $1.8 billion for NSF programs that fund construction, scientific instrumentation and research. Without these funds, many researchers on the verge of finding transformational ways to revolutionize the way we power our cars, store energy and treat or detect diseases will not be able to proceed with their critical work.

The House-passed bill would permit much-needed scientific infrastructure projects to move forward. The Princeton Plasma Physics Laboratory, the leading national laboratory developing the knowledge base for clean fusion energy, could improve its infrastructure, operate its existing facilities much more effectively and seize new scientific opportunities.

SLAC National Accelerator Laboratory in California would be able to address pressing needs by replacing substandard modular buildings and trailers that are well beyond their intended useful life with a new Research Support Building. Brookhaven National Laboratory in Upton, N.Y., would finally be able to replace the antiquated National Synchrotron Light Source (NSLS) with NSLS-II. The design and engineering of NSLS-II was completed two years ago, but the construction, which would create nearly 1,000 manufacturing and construction jobs within 120 days, has been put on hold because of a lack of funding.

The Senate version also would shortchange the NSF's Major Research Instrumentation Program. Scientists require state-of-the-art equipment and instrumentation to develop essential discoveries and innovations. If we fail to upgrade the instruments, we run the risk of losing bright, talented scientists who will go abroad to conduct their research. Many of these same scientists continue to work in substandard World War II-era facilities. It is unreasonable to expect our nation's best and brightest minds to formulate solutions to our most urgent problems under such conditions. Forcing them to do so would be like having them use matchsticks and cellophane tape to build the next Space Shuttle.

As the merits of the American Recovery and Reinvestment Act are debated, we must not underestimate the value of science to our national economy.